

WHAT IS CLAIMED IS:

- 1 1. A diffusion barrier in an integrated circuit, wherein the diffusion
2 barrier comprises a self-assembled monolayer.
- 1 2. The diffusion barrier according to claim 1, wherein the diffusion
2 barrier is less than 5 nm thick.
- 1 3. The diffusion barrier according to claim 1, wherein the diffusion
2 barrier is less than 2 nm thick.
- 1 4. The diffusion barrier according to claim 1, wherein the self-assembled
2 monolayer contains an aromatic group at its terminus.
- 1 5. The diffusion barrier according to claim 1, wherein the diffusion
2 barrier inhibits the diffusion of Cu into a silicon-based substrate.